Application No.: 09/547,369   Docket No.: 20421-00059-US

REMARKS

Claims 1-20 are pending in the application. Favorable reconsideration of the application is requested.

The specification has been amended to include the serial number of a previously identified related patent application.

A new Abstract is attached which avoids the concerns raised in the Office Action.

Withdrawal of the rejection of claims 1-4, 8-11 and 14-17 under 35 U.S.C. § 102(e) as being clearly anticipated by Chiang (U.S. Pat. No. 6,445,709), is requested. The present invention, as exemplified by the rejected claims, provides for local learning of MAC addresses at each port of a network switch. The learning results when a frame is received at a target port and a source address and related port are derived from the frame and stored in a local database. A response from the destination device can then be forwarded to the source device using the learned source address and related port identity connected to the originating source.

In this way, the database is built as frames are received in each target port. The resulting information is useful for returning data to a source device without the intervention of a centralized database of learned MAC addresses.

Turning now to the cited reference to Chiang (U.S. Pat. No. 6,445,709), a method for learning addresses at an _ingress_ port of a switch is disclosed. The method disclosed creates a database at the ingress port connected to a source. An incoming frame containing source address data and a virtual local area network (VLAN) are used by an internal decision making engine to learn the source address of the data frames. The decision making engine stores the address information including source addresses and port vectors identifying the port in which the data was received.

The information contained in the address table is used to make forwarding decisions. The result is that data frames can be properly forwarded within a multi port switch.

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The present invention provides for address learning at a target port connected to a destination device. The result of creating a local database of source addresses at the destination port, along with the port associated with the source address, permits return frames to be expeditiously routed through the switch, onto the network and to any other switch connected to a device having the source address. Thus, it is possible in one transfer of a received frame to a target port to create the routing path backwards to the source address for reply frames.

Fig. 3 of the present application illustrates this process. Received frames from a connected source device are processed and, forwarded to a target card or port to which the destination device is connected. As shown in Fig. 3, learning of the source address and source port occurs at the target port. The database is then useful for returning any traffic to the source address without requesting any specific address information from the network controller, or otherwise burdening the network traffic with request for addressing information.

Applicants amended claims 2, 8 and 9 clearly point-out that the learning occurs at a target port, as distinguished from an ingress port which receives a frame for transmission to the target port. In reviewing the cited reference, there is no indication that any learning takes place at a target port, nor that the port which is connected to the first source device is stored in the database.

Withdrawal of the rejection of claims 5, 7, 12, 18 and 20 under 35 U.S.C. § 103 as being unpatentable over Chiang (U.S. Pat. No. 6,445,709) and further in view of Brice, Jr. et al. (U.S. Pat. No. 4,825,206), is requested. Each of the claims are dependent claims, depending on claims which require the learning of MAC addresses at a target port.

As was noted with respect to the foregoing rejection, Chiang (U.S. Pat. No. 6,445,709) fails to disclose any structure or process for learning addresses at a target port. Similarly, Brice, Jr. et al. (U.S. Pat. No. 4,825,206) fails to teach any such learning of addresses anywhere. Brice, Jr. et al. (U.S. Pat. No. 4,825,206) discloses a digital data transmission network which includes a plurality of nodes connected together by links. Information as to the availability of a previously unavailable element is sent to nodes which have attempted to communicate using the element. In this way, traffic is limited only to those nodes which have a need to utilize the element.

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     The foregoing system for determining the operative or inoperative status of an element, permits the routing process to occur without initiating network wide status inquires to elements within the network. The reference fails to suggest or disclose any type of local MAC address learning as set forth in the rejected claims. Accordingly, it is not seen how the combination of Brice, Jr. et al. (U.S. Pat. No. 4,825,206) with Chiang (U.S. Pat. No. 6,445,709) will yield or disclose this subject matter.

     In view of the foregoing favorable reconsideration is believed to be in order.

     Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185.
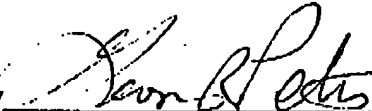
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Respectfully submitted,

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